

Arizona's Instrument to Measure Standards (AIMS)

Sample Test Grade 8



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Acknowledgement

“The Path I Choose” by Bryan K. Doyle. Reprinted by permission of Bryan K. Doyle.

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READING

DIRECTIONS: Read this poem and then answer questions 1 through 8.

The Path I Choose

by BK Doyle

1 As ideas give rise to words
And our words spur us to act
The acts we do create the things
We are judged by after the fact.

5 The words used to describe me
The choices that I make
Are based on how I see myself
And the path I choose to take.

9 Not over-wise, nor foolish,
A simple soul am I
Will I make a difference in my quest?
I speak softly to hear the rest.

13 Not over-wise, nor foolish,
A simple soul am I
Will they see me for me, is my fear?
I shout to make others hear.

17 There are many, many like me
And I join them in the cause
Our dream, a house, is carefully built
With all safely taken inside.

21 There are many, many like me
And I join them in the cause
Our dream, a storm, overwhelms us
With the weak swept away with the tide.

25 True to our thoughts and our feelings
Our actions reveal what we choose.
As judge it is up to us to decide
Can we all win or must someone lose?

1 If the poem had one more stanza, which lines would rhyme in stanza 8?

- A lines 1 and 2
- B lines 2 and 4
- C lines 1 and 3
- D lines 3 and 4

AIMS Sample Test - Reading
Grade 8

- 2 Based on the title of the poem, which of these is the poem **most likely** about?
- A hiking in the woods
 - B choosing exercises
 - C making choices
 - D unchanging futures
- 3 Which **best** describes the meaning of “... *our dream, a storm, overwhelms us?*”
- A the ocean may calm people
 - B the path we choose may be wrong
 - C nightmares may change your life
 - D life has many challenges
- 4 Which is the **best** definition of quest?
- A a speaker
 - B a journey
 - C a purpose
 - D a reason
- 5 Which of the following is the **best** meaning of the first stanza?
- A choices reflect your reputation
 - B decisions can be changed
 - C life is a journey
 - D ideas mark your path

6 Read this line from the poem.

*Not over-wise, nor foolish,
A simple soul am I.*

Which is the **best** meaning for this stanza?

- A I am an intelligent person
- B I am a complicated person
- C I am an ordinary person
- D I am a proud person

7 Which verse identifies a conflict that the author is resolving?

- A “can we all win or must someone lose”
- B “there are many, many like me”
- C “true to our thoughts and our feelings”
- D “a dream, a house, is carefully built”

8 Which word **best** describes the mood of the last stanza?

- A angry
- B gloomy
- C energetic
- D hopeful

DIRECTIONS: Read this passage and then answer questions 9 through 14.

Life in the Neighborhood

Dwayne sat staring at the peeling paint on the walls of the small, cluttered room he shared with his two younger brothers. Through the apartment walls he could hear the wailing of the neighbor's newborn child competing with the music blaring from the cars below. From the living room, his younger brothers giggled at the cartoon antics while waiting for dinner. Dwayne shook his head to bring himself out of his daydream. He sat and stared at the blank paper in front of him, pondering how he would write an essay about his life.

Mama wouldn't be home for another half an hour, so Dwayne went to the kitchen to prepare dinner for his family. With Mama's meager salary, there wasn't much to choose from. The only food in the house was several cans of soup, vegetables, a couple of boxes of noodles, and a bag of rice.

"I'm hungry," said a smiling eight-year old Raymond. "What do you have cookin', good lookin'?"

Grabbing his brother around the waist and tickling him on his sides, Dwayne responded, "I've got my famous bean and rice casserole. Want to help me with it?"

"I want to help, too!" cried Jesse from the doorway.

"You bet," said Dwayne hoisting his youngest brother up to the sink to wash the dirt from his hands.

Shortly after 7:00 p.m., Mama gently slid her key into the lock. Dropping her bag on the tattered chair, she tilted her head high and sniffed the air like a hound tracking a fox and followed the delicious aroma to the kitchen. She saw her three sons laughing as they worked together setting the mismatched plates and forks on the vinyl tablecloth. In the middle of the table she eyed an old baby food jar with a flowering weed that was obviously pulled from the front yard.

The features of her face softened and her heart warmed as the love of her family washed over her.

"Mmmm-mmmmm! Is that your famous bean and rice casserole I smell?" Mama asked as she entered the room.

"Mama, you're home!" the two younger boys said as they raced to give her an energetic hug.

"Sit down, Mama. You look tired. The boys and I have everything ready," said Dwayne pulling out the chair for his mother and placing a napkin on her lap.

As Mama sat down at the table she gave thanks for her food and her wonderful sons. They shared stories of their day as they devoured every last morsel off their plates.

After the dishes were washed and the young boys had been tucked into their beds, Mama stood behind Dwayne as he sat at the kitchen table, adding the last sentence to his essay. "Son, what's that you're writing?"

"Mama, it's the essay I have for school," came his reply.

"And what is that essay about?"

"It's about our life," said Dwayne setting his pen down.

Dwayne's mother looked around at the hand-me-down, thrift store furniture and leaky faucets. She listened as the sounds of the street echoed between the buildings below. Closing her eyes she thought about all the things she wished she could provide for her family, while a single tear slowly made its way down her round cheek.

Dwayne stood up, turned around, and embraced his mother, drinking in her perfume that still lingered after a long hard day. He wiped the tear from his mother's face with the back of his sleeve and said, "Mama, why are you crying?"

AIMS Sample Test - Reading
Grade 8

“Dwayne, I’m just sorry you don’t have a lot in your life,” his mama said stroking his hair.

“I have you and Raymond and Jesse. I live in a house full of love, and that’s more than

a lot of people with fancy houses can say. I wouldn’t trade what we have for all the money in the world.”

Pulling her son close she whispered, “Neither would I, Dwayne. Neither would I.”

- 9 How was Mama’s conflict resolved?
- A Mama realizes they already have a lot.
 - B Mama works harder to earn more money.
 - C Mama helps Dwayne with his essay.
 - D Mama complains about being poor.
- 10 Which situation **most likely** created the setting for this passage?
- A There were three children in the family.
 - B Dwayne had to write an essay.
 - C Mama didn’t earn much money.
 - D They lived in an apartment.
- 11 Based on the passage, which word **best** describes Dwayne?
- A selfish
 - B caring
 - C cautious
 - D grouchy

12 Read the following lines from the passage.

1. Sit down Mama, you look tired

2. Mama stood behind Dwayne as he sat at the kitchen table

Which of the following statements about the point of view is true?

- A 1 is third person 2 is first person-limited
- B 1 is third person 2 is first person
- C 1 is first person 2 is third person-omniscient
- D 1 is first person 2 is third person

13 In the passages, *The Path I Choose* and *Life in the Neighborhood*, which is the common conflict?

- A person vs person
- B person vs nature
- C person vs self
- D person vs technology

14 Which theme is common to *The Path I Choose* and *Life in the Neighborhood*?

- A conflicts must be identified
- B contentment comes from within
- C wealth is the key to happiness
- D distractions hinder happiness

DIRECTIONS: Read this letter and then answer questions 15 through 21.

November 15, 2004

Dear Principal Walker,

As president of Sullivan Junior High School's student council, I have been chosen to write to you on behalf of the eighth grade class. We would like to propose an eighth grade promotion trip to Sea World in San Diego, California.

We chose Sea World for several reasons. In science class, we have been studying oceans and the marine life. Going to Sea World would provide us with the opportunity to visit these creatures and to better understand their habitats. This could be a once in a lifetime experience for those of us who have never been outside Arizona. We will have lots of fun and learn at the same time.

The close location of San Diego was also a factor in planning this trip. San Diego can be reached by bus in approximately six hours. If the busses leave Sullivan after school on Friday afternoon, we should arrive in California in time to have a late dinner and get settled into our hotel rooms before midnight.

You may be asking yourself, "How will this trip be financed?" We are suggesting that the school host an "Oceans of Fun" night for family, friends, and community members for a small fee. The activities would be organized and supervised by eighth grade students. Some of our ideas for the night include a Surfer's Snack Shop with homemade treats for sale, Pirate Pete's Treasure Hunt, and a short production of "A Whale of a Tale." This would be the best opportunity to display our ocean animal reports.

Many of the eighth grade students have gone to school together since kindergarten. We believe that this trip would be a fantastic way to celebrate friendships. This trip may also be one of the last times we see our friends because students from Sullivan Junior High School attend four different high schools.

We invite you to our next student council meeting on December 7, 2004, to discuss your thoughts and work out any concerns you still may have. Thank you for taking the time to consider our request for an eighth-grade promotion trip.

Sincerely,

Julie Martino

Julie Martino

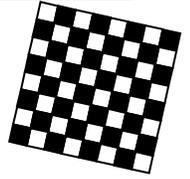
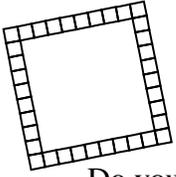
AIMS Sample Test - Reading
Grade 8

- 15 According to the passage, which statement is a fact?
- A We will have lots of fun and learn at the same time.
 - B In science class, we have been studying oceans and the marine life.
 - C We believe that this trip would be a fantastic way to celebrate friendships.
 - D This would be the best opportunity to display our ocean animal reports.
- 16 Why does the author mention that many students have gone to school together since kindergarten?
- A to show she's smart
 - B to prove she's old enough
 - C to prove Sea World is appropriate
 - D to show that the students are close friends
- 17 Which statement **best** supports the request for an eighth grade trip?
- A to promote new friendships
 - B to save endangered marine life
 - C to celebrate the eighth grade year
 - D to perform "A Whale of a Tale"
- 18 Which statement describes the author's **main** purpose for writing the letter?
- A to inform the principal of their plans
 - B to persuade the principal to let them go
 - C to describe the fund raising activities to the principal
 - D to entertain the principal with details from the trip

AIMS Sample Test - Reading
Grade 8

- 19 Which reference would provide the **most** information on the educational activities available at Sea World?
- A atlas
 - B dictionary
 - C website
 - D encyclopedia
- 20 If Julie included another paragraph to the letter, which of the following would **most likely** be the main idea of the paragraph?
- A how to get donations for the “Oceans of Fun” night
 - B approval is needed soon to make arrangements for the trip
 - C why students would start the trip on a Friday
 - D reasons why they don’t want to have chaperones on the trip
- 21 Which of the following, if added to the letter, would **most likely** persuade the principal to approve the trip?
- A The students have not arranged for a sponsor or chaperones.
 - B The 8th grade students have gone on similar trips in the past.
 - C The school board has banned out of state class trips.
 - D The trip is scheduled for the date of the state tests.

DIRECTIONS: Read this passage and then answer questions 22 through 27.



Arizona Board Game Championship

Do you love playing board games? Do you always get the lucky roll of the dice when you play “Monotony” or “Risky?” Do you always seem to know the answer to every question? If so, you are just the type of person to enter the Arizona Board Game Championship. Tournaments will be spread out over the month of June to allow contestants to show their skill in a variety of games.

Tournaments

	Round One	Round Two	Championship
Strategy Games	June 3 – 4	June 5	June 6
Word Games	June 10 – 11	June 12	June 13
Dice Games	June 17 – 18	June 19	June 20
Trivia Games	June 24 – 25	June 26	June 27

Registration

Registration must be done in person between 8:00 and 9:30 am on the first day of Round One for each tournament. The winners from each round advance to the next round.

Age Groups

Youth	Ages 6 – 10
Tweens	Ages 11 – 14
Teens	Ages 15 – 18
Young Adult	Ages 19 – 30
Adult	Ages 30+

Cost

Championship registration cost is \$6.00 per person.
Tournament cost is \$8.00 per tournament.

Prizes

The winner for each age group will win a Tournament Champion trophy. Silver medals will be awarded for second place and bronze medals for third place. The person with the most wins in the four tournaments in each age group will be awarded an Arizona Board Game Tournament Championship Trophy.

Each person to enter will also receive a gift certificate for \$5.00 off any game at any WeLuvToys store.

Location

WeLuvToys Store
702 W. Camelback Road
Phoenix, AZ

AIMS Sample Test - Reading
Grade 8

- 22 According to the passage, when is the second tournament scheduled to begin?
- A June 3 – 4
 - B June 10 – 11
 - C June 12
 - D June 13
- 23 According to the passage, how much does it cost to register for the championship?
- A \$14.00
 - B \$8.00
 - C \$6.00
 - D \$5.00
- 24 Which information is **not** necessary to know before entering the contest?
- A the registration time
 - B the age groups involved
 - C the address of the WeLuvToys store
 - D the entrants receive gift certificates
- 25 Which section of the passage identifies the place of registration?
- A Cost
 - B Location
 - C Tournaments
 - D Registration

AIMS Sample Test - Reading
Grade 8

26 Which of the following information cannot be found in the table of tournaments?

- A the time the tournament begins
- B the type of game being played
- C the date of the championship round
- D the number of days each round lasts

27 In which group would you register if you are twelve years old?

- A teens
- B young adult
- C youth
- D tweens



AIMS Sample Test – Reading Answer Key
Grade 8

Item Number	Correct Answer	Performance Objective
1	B	2-1-7
2	C	1-6-1
3	D	1-4-4
4	B	1-4-2
5	A	1-6-7
6	C	1-6-7
7	A	2-1-1
8	D	2-1-6
9	A	2-1-1
10	C	2-1-5
11	B	2-1-3
12	D	2-1-4
13	C	2-2-2
14	B	2-1-2
15	B	3-1-3
16	D	3-3-3
17	C	3-1-1
18	B	3-3-1
19	C	3-1-6
20	B	3-1-10
21	B	3-3-2
22	B	3-2-1
23	A	3-2-4
24	D	3-2-3
25	B	3-1-5
26	A	3-1-8
27	D	3-1-5

WRITING

AIMS Sample Test – Writing
Grade 8

Writing

DIRECTIONS:

Read the writing prompt below. Use the next page for your prewriting/planning. Then write your draft.

People run for elected offices, from the President of the United States to class officers in a school. You are running for class president for your grade level.

Write an essay convincing your classmates that you are the best choice for class president.

Your essay should include:

- An introduction, body, and conclusion.
- An explanation of the qualities.
- Specific, appropriate details.

Remember to edit for spelling, grammar, punctuation, and capitalization.

AIMS Sample Test – Writing
Grade 8

Writing

DIRECTIONS:

Use the prewriting/planning space below for notes, lists, webs, outlines, or anything else that might help you plan your writing.

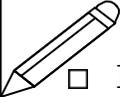
Prewriting/Planning

Writing

FINAL COPY

DIRECTIONS:

Now you are going to revise your draft. Read your draft. Then use the questions in the Writer's Checklist as a guide to make changes to your draft. Check each box if you can answer "yes" to that question.

WRITER'S CHECKLIST	
	<input type="checkbox"/> Does my paper have a specific audience and a specific purpose?
	<input type="checkbox"/> Does my paper contain a strong controlling idea?
	<input type="checkbox"/> Does my paper stay on topic?
	<input type="checkbox"/> Does my paper include specific and relevant details, reasons, and examples?
	<input type="checkbox"/> Does my paper have an effective beginning, middle, and end?
	<input type="checkbox"/> Does my paper progress in a logical order, and do my ideas flow smoothly?
	<input type="checkbox"/> Does my paper contain words that make it interesting?
	<input type="checkbox"/> Does my paper contain sentences that are clear and varied in structure?
	<input type="checkbox"/> Does my paper include effective use of paragraphing?

DIRECTIONS:

For each box you did not check, make the change on your draft. Then write your final copy on the following pages.

MATHEMATICS

AIMS Reference Sheet

PLANE FIGURES: PERIMETERS AND AREAS

Name	Notation	Perimeter (P) Circumference (C)	Area (A)
Triangle	$a, b, c =$ sides $h =$ height	$P = a + b + c$	$A = \frac{1}{2}bh$ or $A = \frac{bh}{2}$
Rectangle	$b =$ base $h =$ height	$P = 2(h + b)$	$A = bh$
Circle	$r =$ radius $d =$ diameter	$C = \pi d$ or $C = 2\pi r$	$A = \pi r^2$
Parallelogram	$a, b =$ sides $h =$ height	$P = 2(a + b)$	$A = bh$
Trapezoid	$a, b, c, d =$ sides $B_1 =$ long base $B_2 =$ short base $h =$ height	$P = a + b + c + d$	$A = \frac{(B_1 + B_2)h}{2}$
			Use 3.14 or $\frac{22}{7}$ for π .

GEOMETRIC SOLIDS: VOLUMES

Name	Notation	Volume (V)
Rectangular Prism	$l =$ length $w =$ width $h =$ height	$V = lwh$
Rectangular Pyramid	$B =$ area of the base $h =$ height	$V = \frac{1}{3}Bh$ or $V = \frac{Bh}{3}$
Right Cylinder	$r =$ radius $h =$ height	$V = \pi r^2 h$
Right Cone	$r =$ radius $h =$ height	$V = \frac{1}{3}\pi r^2 h$ or $V = \frac{\pi r^2 h}{3}$
Sphere	$r =$ radius	$V = \frac{4}{3}\pi r^3$

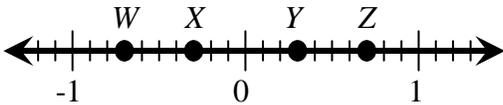
GEOMETRIC SOLIDS: SURFACE AREAS

Name	Notation	Surface Area (SA)
Rectangular Prism	$l =$ length $w =$ width $h =$ height	$SA = 2lw + 2lh + 2wh$
Right Cylinder	$r =$ radius $h =$ height	$SA = 2(\pi r^2) + 2\pi rh$

Mathematics

DIRECTIONS: Read each question and choose the best answer.

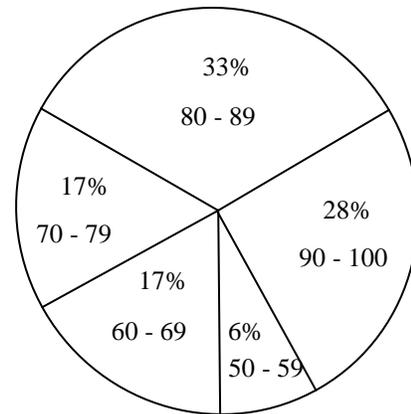
- 1 Which point is located **closest** to $-\frac{7}{10}$ on the number line below?



- A W
B X
C Y
D Z
- 2 Juan is saving to buy a leather basketball that costs \$40.00. He already has \$12 and will save \$3.50 per week until he has enough money to buy the basketball. At this rate, what is the least number of weeks it will take for Juan to have \$40.00?
- A 4
B 8
C 12
D 15

- 3 Ms. Chavez made a circle graph to show the results of last week's math test. There are 18 students in Ms. Chavez' class.

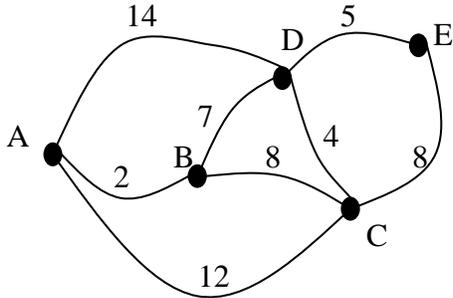
Scores on Math Test



According to the circle graph, which of these is **closest** to the number of students who scored less than 80 on the math test?

- A 18
B 10
C 7
D 5

- 4 The following vertex-edge graph represents the difficulty level of the path between each pair of vertices. The greater the number, the more difficult the path.



Which path (from A to E) is the least difficult?

- A Path $A \rightarrow D \rightarrow E$
 B Path $A \rightarrow C \rightarrow E$
 C Path $A \rightarrow B \rightarrow D \rightarrow E$
 D Path $A \rightarrow C \rightarrow D \rightarrow E$
- 5 A tree farm charges \$75.00 for a 5-foot orange tree and \$50.00 for delivery regardless of the number of trees purchased. Which equation expresses the total cost, C , in terms of the number of 5-foot trees, t , purchased?

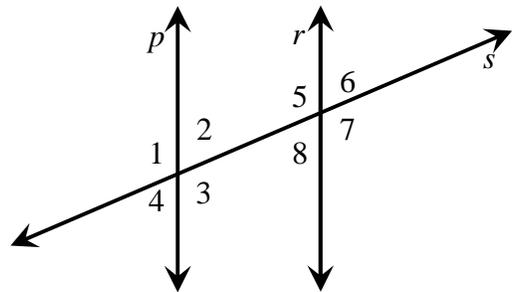
- A $C = 75 + 50t$
 B $C = 75t + 50$
 C $C = 75t + 5$
 D $C = 75 + 5t$

- 6 Mary wrote a sequence using the following steps:

- She chose -10 as the first term.
- Each term after the first was 4 less than the immediately preceding term.

What are the first five terms in Mary's sequence?

- A -10, -6, -2, 0, 4
 B -10, -6, -2, 2, 6
 C -10, -14, -18, -20, -24
 D -10, -14, -18, -22, -26
- 7 In the diagram below, lines p and r are parallel. Line s is a transversal that is not perpendicular to lines p and r .



Which angle is **not** congruent to $\angle 5$?

- A $\angle 1$
 B $\angle 2$
 C $\angle 3$
 D $\angle 7$

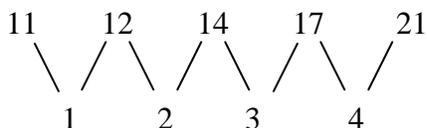
8 Which set below includes only irrational numbers?

- A $\{-\sqrt{12}, -3.\overline{76}, \sqrt{36}, 4.3858\dots\}$
- B $\{-7.2322\dots, \sqrt{5}, \sqrt{15}, 8.27451\dots\}$
- C $\{-5.6, \sqrt{14}, 6.\overline{3245}, \sqrt{81}\}$
- D $\{-\sqrt{8}, .\overline{37}, 3.265165065\dots, \sqrt{90}\}$

9 Diane wants to extend the pattern shown below.

11, 12, 14, 17, 21, ...

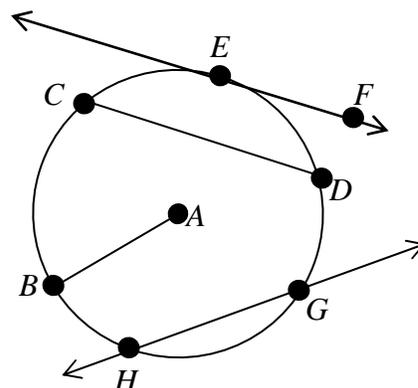
She noticed another pattern when she found the differences between terms as shown in the diagram below.



If the differences continue to increase by 1, what will be the 9th term in Diane's original pattern?

- A 25
- B 26
- C 39
- D 47

10 Points $B, C, D, E, G,$ and H lie on circle A .



In the diagram, which segment appears to be a tangent to circle A ?

- A \overline{CD}
- B \overline{AB}
- C \overline{EF}
- D \overline{GH}

11 What is the standard notation for the following expression?

$$1.35 \times 10^{-2}$$

- A 0.0135
- B 0.135
- C 135
- D 13500

- 12 The students in Ms. Romero’s social studies class are preparing to learn about South American countries. The table below shows possible report topics.

Country	Geographic Feature	Visual Display
Columbia	Mountain	Map
Chile	River	Flag
Argentina	Lake	Currency
Brazil		

Each student will select a country, a geographic feature to study, and a visual display.

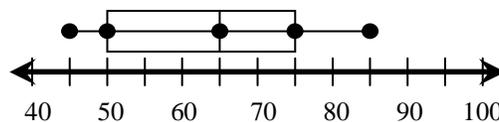
How many different types of reports with 1 country, 1 feature, and 1 display can the students write?

- A 80
B 36
C 10
D 4
- 13 What is the value of the expression below when $a = 6$ and $b = 2$?

$$4b + ab \div (a - b)$$

- A 5
B 9
C 11
D 16

- 14 Which number is **closest** to the median of the data set represented by the box-and-whiskers plot below?



- A 75
B 65
C 60
D 50
- 15 Which equation could represent the relationship between x and y in the T-chart shown below?

x	y
1	3
2	7
3	11

- A $y = x + 2$
B $y = 4x - 1$
C $y = 2x + 1$
D $y = 5x - 2$

16 A girl dropped four objects into a river to see which would float downriver fastest to a bridge where her friend was waiting. The following clues will show the order in which the objects reached the bridge.

- The feather either finished in 2nd or 3rd place.
- The stick finished before the leaf.
- The cork finished before the stick.
- The stick finished 3rd.

Which list shows the objects in the order that they reached the bridge?

- A** leaf, feather, stick, cork
- B** cork, stick, feather, leaf
- C** stick, cork, feather, leaf
- D** cork, feather, stick, leaf

17 Josie's age is four years greater than double Mario's age. If Mario's age is n years, which of these expressions represents Josie's age?

- A** $4n$
- B** $4n + 2$
- C** $2n + 4$
- D** $2(n + 4)$

18 Determine the value of x that makes the equation below true.

$$5x + 2 = 42$$

Which of the following equations is true for the same value of x ?

- A** $4x + 2 = 30$
- B** $3x - 3 = 5$
- C** $3x + 4 = 20$
- D** $2x - 4 = 12$

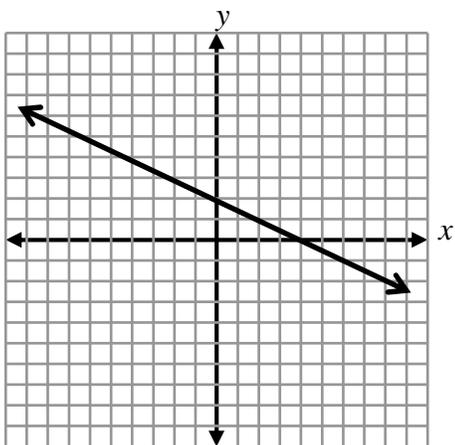
19 Maria had a collection of bracelets. Next week she will give her sister 18 of her bracelets, which is approximately $\frac{1}{3}$ of her collection.

Which of the following could be the number of bracelets in Maria's collection?

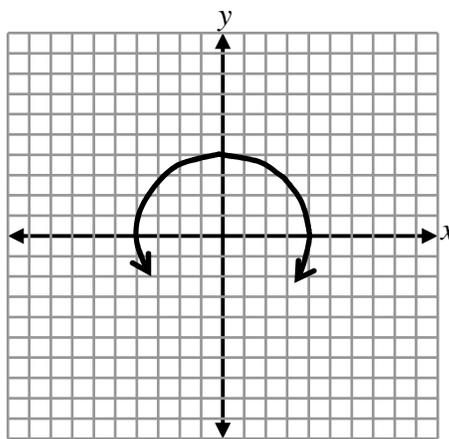
- A** 41
- B** 46
- C** 50
- D** 53

20 Which graph represents a linear function of x ?

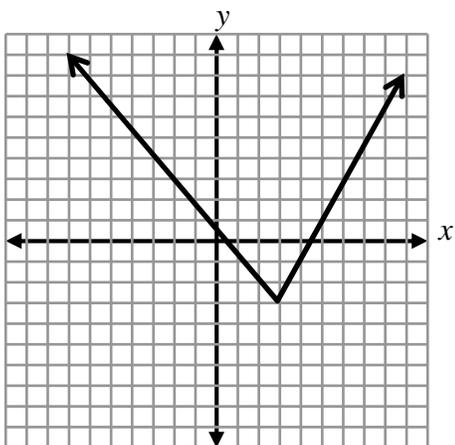
A



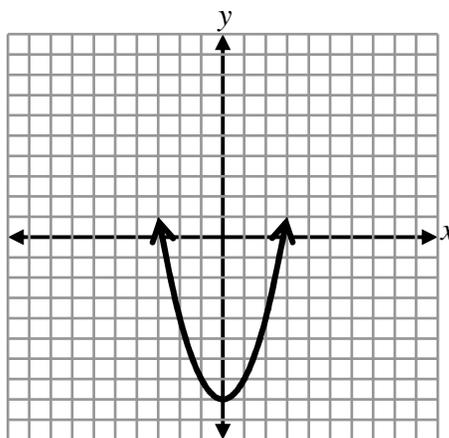
C



B

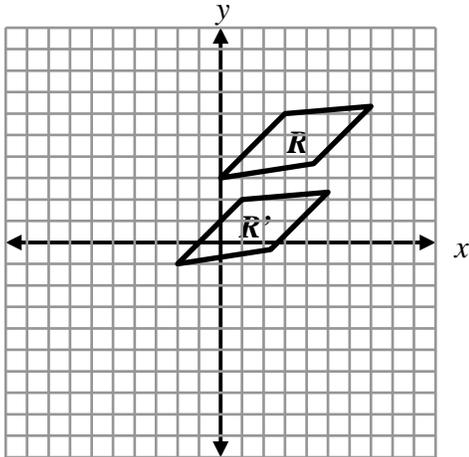


D

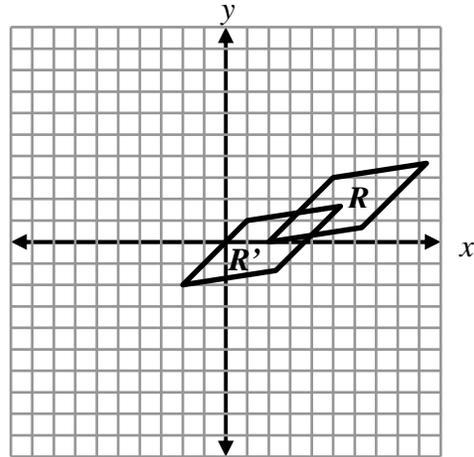


- 21 A figure on the graph is translated down 4 units and left 2 units. Which of the following represents this single transformation?

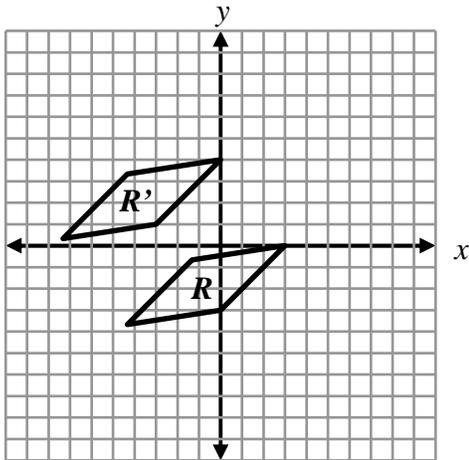
A



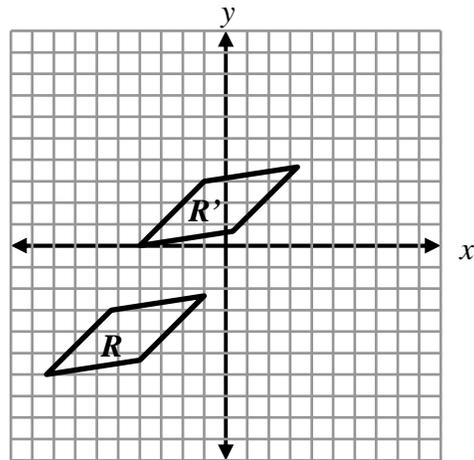
C



B

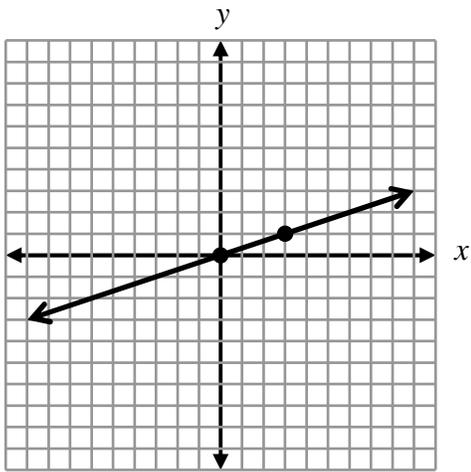


D

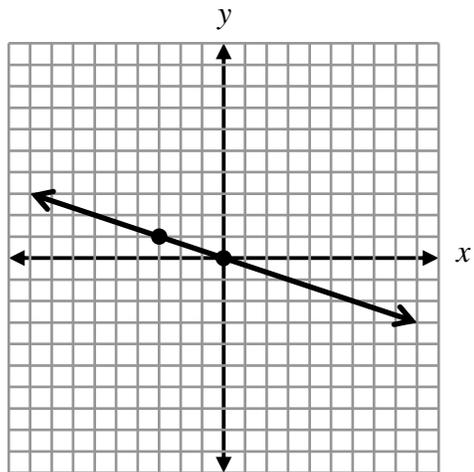


22 Which of these lines has a slope of -3?

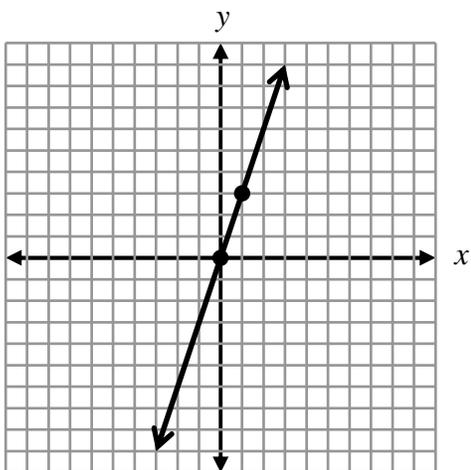
A



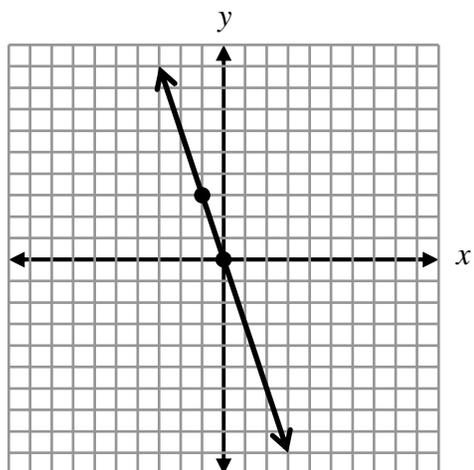
C



B



D



- 23 Marissa and Jimena each conducted 75 trials of the same experiment at the miniature golf course.

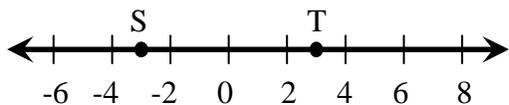
- The bucket had only green, red, and yellow golf balls.
- Each girl randomly selected golf balls from a bucket.
- Each girl recorded the color of the golf ball, replaced it, and then chose another golf ball.

Results

Name	Green	Red	Yellow
Marissa	30	38	7
Jimena	29	36	10

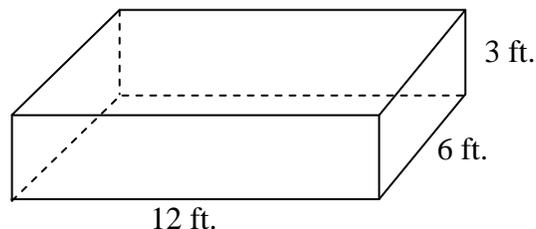
Which statement is **best** supported by these results?

- A There are more green balls in the bucket than yellow balls.
 - B There are twice as many red balls in the bucket than green balls.
 - C There is the same number of green, red, and yellow balls in the bucket.
 - D There is the same number of green and red balls in the bucket.
- 24 Which is **closest** to the distance between points S and T?



- A 0
- B 3
- C 6
- D 7

- 25 What is the volume, in cubic feet, of the right rectangular prism below?



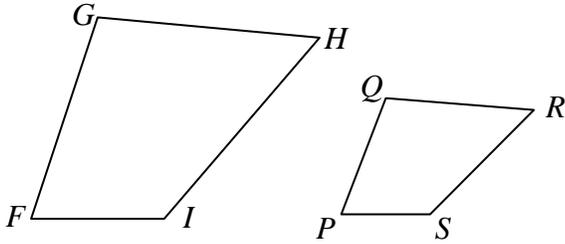
- A 216 ft.^3
 - B 108 ft.^3
 - C 54 ft.^3
 - D 21 ft.^3
- 26 Aftyn bought 17 pens that cost \$0.53 each. She used a calculator to find the total cost. Her calculator display is shown below.

18.02

Which statement is true?

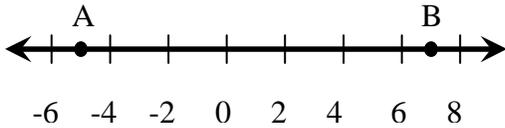
- A The number displayed is reasonable because calculators do not make mistakes.
- B The number displayed is reasonable because it is more than 17.
- C The number on the display is unreasonable because 20 times \$0.50 is only \$10.00.
- D The number on the display is unreasonable because it should be greater than \$18.02.

- 27 Quadrilateral $FGHI$ is similar to quadrilateral $PQRS$.



Which of the following statements is true?

- A $\angle I \cong \angle Q$
 B $\angle G \cong \angle S$
 C $\angle P \cong \angle G$
 D $\angle H \cong \angle R$
- 28 Which is **closest** to the value of the midpoint between points A and B?



- A 0
 B 1
 C 2
 D 3

- 29 The chart below shows the approximate distances of various towns and cities from Williams.

Town or City	Distance (miles)
Ash Fork	19
Drake	36
Flagstaff	28
Red Lake	9
Seligman	42
Kingman	117
Parks	14

Which is **closest** to the mean of the seven distances listed in the chart?

- A 9 miles
 B 28 miles
 C 38 miles
 D 40 miles
- 30 Alyce has 36 marbles in a bag, all the same size and shape. There are 12 red, 14 blue, and 10 yellow marbles in the bag. She will select a marble from the bag at random.

What is the probability that the marble Alyce selects will be red?

- A $\frac{1}{3}$
 B $\frac{1}{36}$
 C $\frac{7}{18}$
 D $\frac{5}{18}$

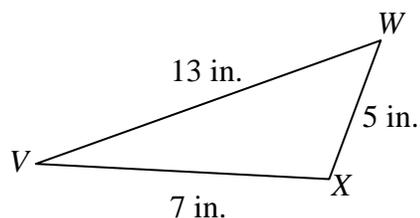
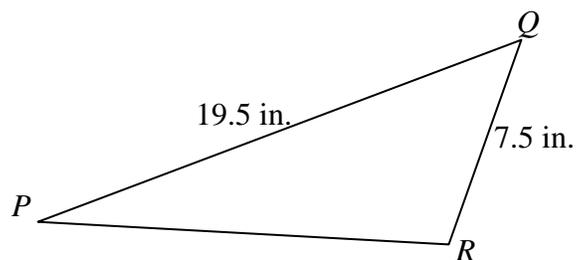
- 31 Read the statement below.

If you play in the jazz band, then you also play in the concert band.

Which conclusion is valid?

- A All members of the concert band play in the jazz band.
- B No members of the jazz band play in the concert band.
- C No members of the concert band play in the jazz band.
- D All members of the jazz band play in the concert band.

- 32 Triangle PQR is similar to triangle VWX .

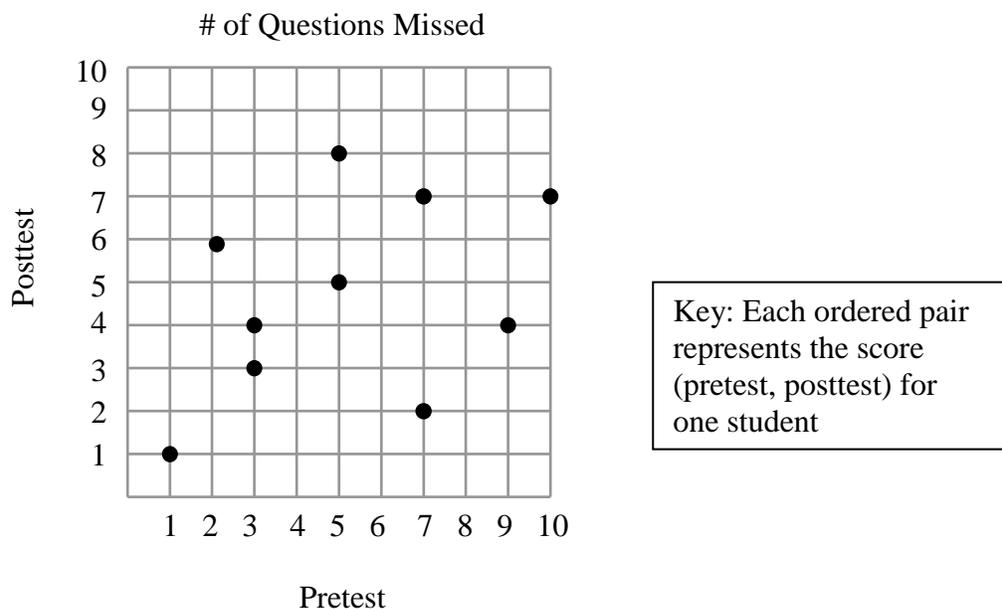


What is the length of \overline{PR} ?

- A 7.5 in.
- B 9.5 in.
- C 10.5 in.
- D 13.5 in.

AIMS Sample Test – Mathematics
Grade 8

- 33 Ms Sandy made a scatterplot to compare the number of questions each student missed on their pretest and their posttest, as shown in the graph below.

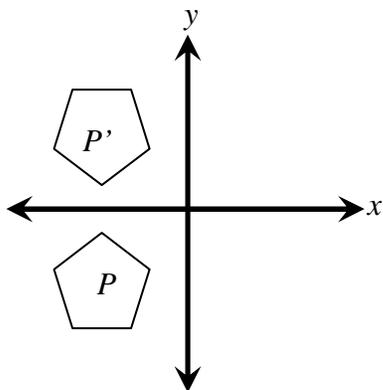


How many of Ms. Sandy's 10 students missed the same number of questions on both tests?

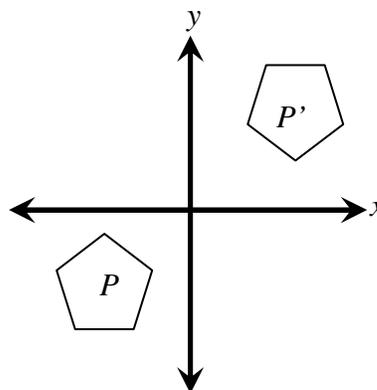
- A 2
- B 4
- C 8
- D 10

34 Which figure is a reflection of figure P in respect to the x -axis?

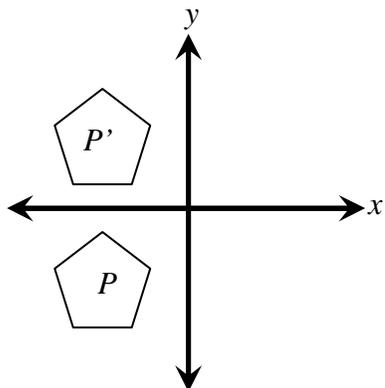
A



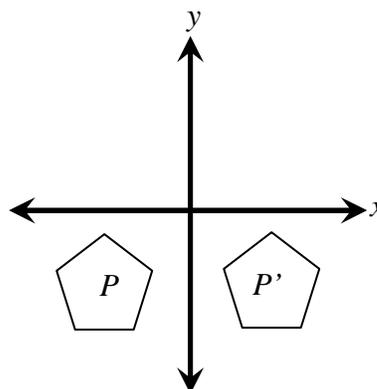
C



B



D



AIMS Sample Test – Mathematics Answer Key
Grade 8

Item Number	Correct Answer	Performance Objective
1	A	1-1-1
2	B	1-2-2
3	C	2-1-4
4	C	2-4-1
5	B	3-3-4
6	D	3-1-1
7	B	4-1-6
8	B	1-1-2
9	D	3-1-2
10	C	4-1-8
11	A	1-2-10
12	B	2-3-1
13	C	3-3-1
14	B	2-1-5
15	B	3-2-1
16	D	5-2-1
17	C	3-3-2
18	D	3-3-9
19	D	1-3-1
20	A	3-2-2
21	A	4-2-2
22	D	3-4-1
23	A	2-2-7
24	C	4-3-3
25	A	4-4-2
26	C	1-3-4
27	D	4-1-10
28	B	4-3-2
29	C	2-1-6
30	A	2-2-3
31	D	5-2-2
32	C	4-4-7
33	B	2-1-9
34	A	4-2-1